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HIGH SPEED JETS IN A LOW SPEED WAR: THE UTILITY OF TACTICAL AIRPOWER IN LOW-INTENSITY CONFLICT

A Monograph

by

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This monograph discusses an often forgotten aspect of low-intensity conflict (LIC), tactical airpower. LIC is an environment, not a mission, and as such is often misunderstood. The US view of conflict is primarily Eurocentric and the subtleties of combat of less than mid-intensity often escapes the average military planner. Once a decision to engage in LIC is made, all the tools at the disposal of the planner should be considered, and tactical airpower should not be dismissed out of hand.

The monograph is divided into three main sections. First is a discussion of the nature of LIC and of tactical airpower. In section two, three case histories of the use of tactical airpower in LIC are presented. The third section is a look at USAF capabilities to perform the LIC mission today and notes several shortfalls.

The paper concludes with a recapitulation of the utility of airpower in LIC. The shortfalls in USAF ability to prosecute LIC are highlighted and suggestions for improvement are offered.

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ABSTRACT

THE HIGH SPEED JET IN A LOW SPEED WAR: THE UTILITY OF TACTICAL AIRPOWER IN LOW-INTENSITY CONFLICT by MAJ Raymond O. Knox, USAF, 43 pages.

This monograph discusses an often forgotten aspect of low-intensity conflict (LIC), tactical airpower. LIC is an environment, not a mission, and as such is often misunderstood. The US view of conflict is primarily Eurocentric and the subtleties of combat of less than mid-intensity often escapes the average military planner. Once a decision to engage in LIC is reached all the tools at the disposal of the planner should be considered, and tactical airpower should not be dismissed out of hand.

The monograph is divided into three main sections. First is a discussion of the nature of LIC and of tactical airpower. A brief history of tactical airpower is presented here, as well as a discussion of the four operational categories of LIC. In section two three case histories of the use of tactical airpower in LIC are presented. The histories are all examples of insurgency/counterinsurgency, since that is the most prevalent form conflict for the use of tactical air. The Philippine Insurrection, the Malay Emergency, and the Soviet invasion of Afghanistan are all examined in light of their use of tactical airpower. The third section is a look at USAF capabilities to perform the LIC mission today and notes several shortfalls.

The paper concludes with a recapitulation of the utility of tactical airpower in LIC. The shortfalls in USAF ability to prosecute LIC are highlighted and suggestions for improvement are offered.

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Introduction

The nature of Low Intensity Conflict (LIC) has become more and more a topic of conversation among military and civilian theorists in recent years. It has been pointed out by numerous sources that conflicts of low intensity are much more likely to occur than nuclear war or war of mid to high intensity (see figure 1). Indeed this seems likely given the numbers and kinds of armed conflict that have proliferated around the globe in the years since WW II. As one writer noted, "With the likelihood of conventional conflict reduced by the fear of a nuclear holocaust, the proliferation of these little conflicts in strategically important areas represents the most serious threat to US security interests."[1]

As a result of the growing awareness of LIC, more and more authors are writing more and more about the subject. For example an entire issue (September 1988) of Military Review was recently devoted to the topic. To date, the material being written concerning LIC has generally ignored the use of tactical airpower although integration of tactical airpower with ground operations is considered basic to the Army's AirLand Battle doctrine.

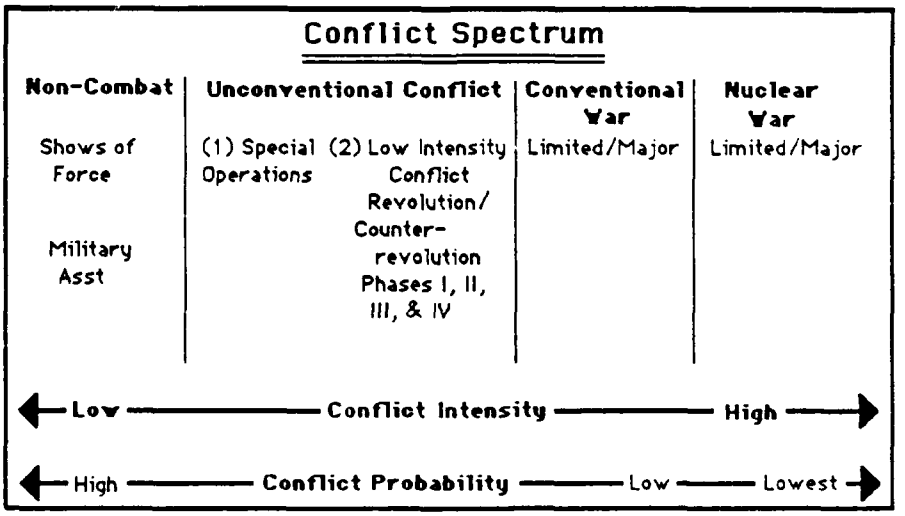

Figure 1[2]

Yet integration of airpower (other than recce or airlift) is generally conspicuous by its absence from writings on LIC. Perhaps this is so because the presence and effects of airpower are taken for granted by the large majority of writers. More probable, however, is the perception that airpower, particularly tactical airpower, generally has no place in the low intensity environment. Unfortunately, this observation may have some validity.

Tactical airpower today is designed for use in the high-intensity conditions expected to be found in the NATO central region. This is borne out by the Air Force's keystone doctrinal manual on tactical airpower, TACM 2-1, when it says, "Since the largest threat force faces Europe, we must devote particular attention to that theater."[3] To this end, the Air Force has spent the lion's share of its budget to develop supersonic multi role fighters designed to penetrate dense concentrations of air defenses, accurately strike hardened targets deep in enemy territory, and fend off attacks by enemy counter air fighters (with one exception, the A-10). Technologically advanced ordnance, known as "smart munitions" have been improved until we now have precision guided munitions capable of eliminating high payoff targets with phenomenal accuracy and reliability.

What the Air Force has <u>not</u> developed is a reliable, all weather, ground support aircraft suitable for supporting low intensity conflicts. We have <u>not</u> developed a low cost aircraft suitable for continuous work off unimproved landing sites, one that is simple to operate and easy and inexpensive to maintain. Such an aircraft, affordable by third world economies, is absolutely essential for Foreign Internal Defense (FID), the backbone of Low Intensity Conflict.

Neither has the Air Force developed a dedicated training program for tactical aircrews on low intensity operations. Major training done by the Air Force at "RED FLAG" and in support of operations at the National Training Center (NTC) is based on the NATO central region threat array and mobile, mechanized warfare.

With the exception of the 1st Special Operations Wing, a dedicated asset of US Special Operations Command, the Air Force has largely ignored the low intensity environment--particularly with respect to participation by tactical airpower.

This monograph will examine these two concepts, Low Intensity Conflict and Tactical Airpower, to determine how best to integrate one with the other in order to protect our national interests. Because the scope of LIC is so great this work will focus primarily on the use of tactical air power in the counterinsurgency/insurgency and strike arenas. Section One will concentrate on the nature of LIC and Tactical Airpower. An understanding of the low intensity environment and tactical aviation is essential. The second section will be an historical examination of selected low intensity conflicts in which tactical air was utilized. Section Three will examine the current shortfalls in the tactical airpower arena to successfully prosecute war at the lower end of the spectrum.

Section One

On The Nature Of Low Intensity Conflict And Tactical Airpower

What is Low Intensity Conflict? To begin with, there are many who feel that the term "Low Intensity Conflict" was ill-conceived from the beginning and does not convey the right sentiment. For the indigenous population and military forces of a region, LIC is anything but low intensity. One much quoted expert on LIC, Sam Sarkesian, has said,

> "Earlier attempts at defining or explaining this term/concept [LIC] were in the main, based on the size of the forces engaged and the purpose of the conflict. The primary distinction however, rests more with the character of the conflict than with its level of intensity or the specific numbers of forces involved."[4]

The term "Unconventional Conflict" has recently come into vogue as an alternative label and may more accurately describe these wars at the lower end of the spectrum. Admitting the inadequacy of the name, in the interest of simplicity, the term LIC will be used throughout this monograph.

It seems as though everyone has his own definition of what really is Low Intensity Conflict . FM 100-5, Operations, calls it simply, "war at the low end of the spectrum."[5] While this definition has the advantage of simplicity, it lacks specificity and clarity. The definition found in FC 100-20, Low Intensity Conflict is a bit more specific, but still lacks clarity when it defines LIC as "a limited

politico-military struggle to achieve political, military, social, economic, or psychological objectives."[6]

The definition currently accepted by military writers (and the one used in this monograph) is found in the latest draft of FM 100-20, Military Operations in Low-Intensity Conflict. Here LIC is described as *"a politico-military confrontation between contending states or groups below conventional war and above the routine, peaceful competition among states."*[7] This definition adequately sets the bounds of LIC while clearly acknowledging the unique non-military aspects of low intensity conflict.

Emerging doctrine divides LIC into four general categories: peacetime contingency operations, peacekeeping, combatting terrorism, and insurgency/counterinsurgency.[8] These categories are not rigidly confined and may overlap. One operation will often dovetail with another. For instance a peacetime contingency operation could be executed as a result of a terrorist incident.

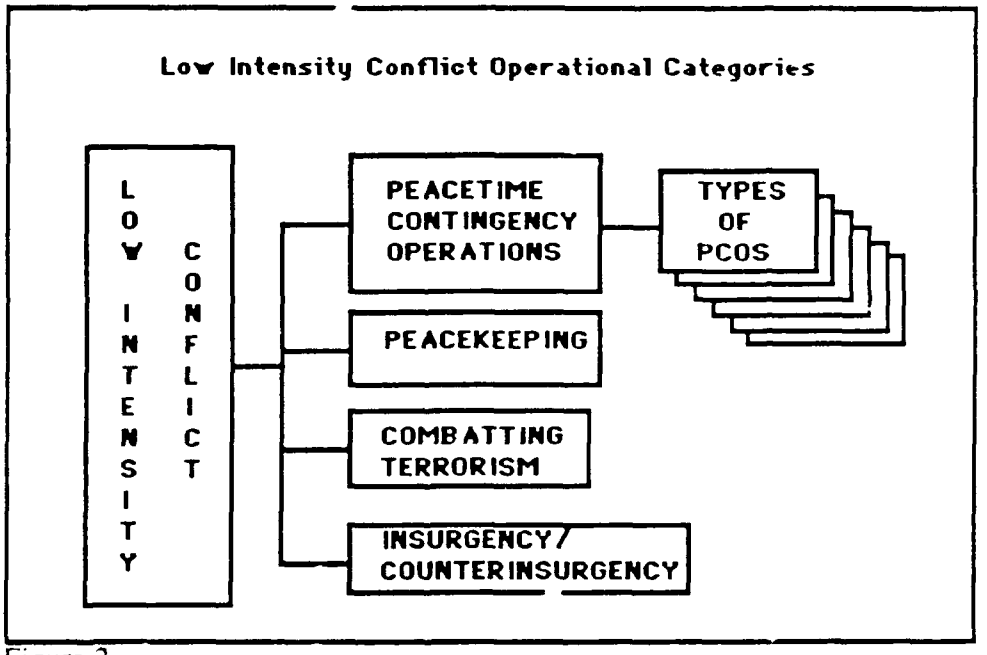

Figure 2

Peacetime contingency operations, "include such diverse actions as disaster relief, certain types of drug intervention, and land, sea, or air strikes".[9] These operations are potentially politically sensitive actions taken by the military, usually occurring in locations requiring either advanced staging bases or deep penetration capabilities. By their nature peacetime contingency operations are of short duration and subject to severe restraints and constraints on the use of force. Disaster relief such as the airlift of critical medical material or the use of army engineer units to help in massive reconstruction following natural disasters is a common peacetime contingency mission. Drug intervention by military units, much in the press lately, is a political and legal "hot potato" inside our own borders and will bear much closer examination by our national leaders.

Strike operations, by their nature, are the most violent form of peacetime contingency operations. These actions must be carefully coordinated in conjunction with political and economic actions to affect targets of a strategic nature with the goal in mind of crisis avoidance or management. Ground strike operations will normally utilize high trained organizations such as Ranger battalions or Special Forces teams.[10] These units are capable of conducting penetrations deep into hostile territory, but infiltration and exfiltration are likely to be extremely difficult.

Peacekeeping operations are "operations conducted in support of diplomatic efforts to achieve, restore, or maintain peace in areas of potential or actual conflict".[11] These operations are conducted by forces restricted to exact parameters mutually agreed upon by the former belligerents. Use of force is usually expressly forbidden in the execution of the peacekeeping mission, it is only used as a last resort, in self-defense.

Combatting terrorism has become a mission of highest priority in the US military. Politically motivated violence and threats of violence are the primary concern of the military establishment. Terrorists, unlike insurgents or

counterinsurgents, neither need nor actively seek the support of the people. Victims of terrorists are, as often as not, innocent noncombatants who have no direct control over the grievance of the terrorists. Hostage taking, assassination, sabotage, bombings and armed attacks (or threats thereof) are all acts of the terrorist.[12]

There are generally three categories of terrorism. Nonstate supported terrorism occurs when the terrorist operates of his own accord. receiving no significant support from any government. The Red Brigade is a nonstate supported terrorist group. State supported terrorism, while being supported by one or more government, generally features independent terorist action. An example of a state supported terrorist organization is the Popular Front for the Liberation of Palestine. The state directed terrorist acts as an agent of a government receiving intelligence, material support, and other direct aid from that government. Libyan "hit-teams" sent to assassinate exiled Libyans are examples of state directed terrorists.[13]

Insurgency/counterinsurgency is the last and most highly publicized form of LIC. According to JCS Pub 1 an insurgency is "an organized movement aimed at the overthrow of a government through use of subversion and armed conflict" and counterinsurgency is defined as "those military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat subversive insurgency." Though they differ in execution they are both aspects of the same process. Any involvement by the US military in insurgency/counterinsurgency operations must be part of a long range, multi-faceted program of military, political, and economic aid to whichever faction we support. With the specter of Vietnam looming large in our recent history any involvement of US military in such operations will be subject to frequent and close scrutiny.

It is obvious that the nature of LIC is diverse and often ambiguous. There is a world of difference between peacekeeping and counterinsurgency missions.

One often overlooked tool available to LIC planners that has application in each operational category is tactical airpower. To help understand this asset an examination of the nature of tactical airpower is in order.

The US Air Force keystone manual on tactical air operations opens with this statement: "The mission of tactical air power is to deter the enemy from attacking, and should deterrence fail, *to conduct war at the level of intensity and effectiveness needed to win* [14] [emphasis added]. This broad, sweeping statement is the essence of tactical air operations. To put it a different, more popular, way "The mission of the [tactical] Air Force is to fly and to fight."

Since the beginning of aerial operations tactical military applications have been envisioned for the man and his machine. Beginning with the arrival of the balloon over the battlefield the enemy has found it increasingly difficult to hide from aerial adversaries. The gas engine gave the aeronaut the flexibility to seek out his opponent and to maneuver so as to arrive in a position of advantage to engage and destroy either land or air targets.

World War I witnessed the purely tactical application of airpower. The physical limitations of the early aircraft precluded strategic actions from the air. Altitude limitations, structural limitations, and limited range forced the pilots to work over the front line trenches and their immediate environment. Despite their limitations, the efforts of early military flyers influenced such men as Guilo Douhet and Billy Mitchell, the early pioneers of air doctrine. These men dreamed of aviation with strategic impact, long range heavy bombers forcing the decision from the air.

Tactical aviation, by and large, was neglected during the interwar years. There were,however, two significant contributions to the history of tactical airpower that deserve mention. The first event of importance was the first use of tactical air to support troops on the ground. In 1927, the US Marine Corps was

engaged in what we would call today a low intensity conflict in Nicaragua. On the first occasion of air-ground cooperation a Marine pilot landed his aircraft on a road near the embattled ground forces to get information on the whereabouts of the enemy and instructions from the ground forces commander, then took off again and delivered his ordnance as directed.[15] Partly because of the interface of tactical air power, the US Marines list the Nicaraguan Intervention as a successful operation.

The second event of significance was the integration of technology with air-ground cooperation doctrine by the German military during the Spanish Civil War. In 1936 Colonel Wolfram von Richthofen, cousin of the famous "Red Baron" of WW I fame, was Chief of Staff for the German Condor Legion, fighting on the side of the Nationalists. A lack of Nationalist artillery tubes prompted von Richthofen to try using some otherwise obsolete He-51 fighter planes as flying artillery. Integrating the firepower from the air was a Forward Air Controller (FAC) on the ground, directing the aircraft by radio onto targets as required by the ground commander.[16] Without a doubt this successful beginning to integration of technology and doctrine was a prime contributor to the success of the German *Blitzkrieg* during WW II.

Tactical airpower came into its own during WW II. After a period of growth and learning the integration of air and ground forces achieved an incredible synergism. In the European theater the 9th Tactical Air Command under the leadership of General Elwood Quesada achieved operational level results, virtually stopping the daylight movement of the German army in the path of Allied pursuit. In the Pacific theater US Marine and Naval tactical aviation worked in close coordination with ground troops in their remorseless treck towards the Japanese home islands. Finally, in the China-Burma-India theater the support of ground troops by the air forces, both tactically and logistically, was decisive in General

William Slim's advance down the length of Burma and defeat of numerically superior Japanese forces.

During the Korean Conflict the tactical air power of the US Air Force and Marine Corps was instrumental in MacArthur's campaigns against the North Korean and Chinese forces. Unfortunately, the tactical aviation branches had been allowed to languish between WW II and Korea and a painful reeducation in the fundamentals of tactical air support had to occur before a truly effective system was put into working order.

In Vietnam the close cooperation of air and ground forces is a matter of record. Again, however, the USAF entered a conflict with a less than optimum tactical air control system and no dedicated close support aircraft. The most effective aircraft for close support of operations in Vietnam was the A-1E Skyraider, a veteran of the Korean era. There were few of these, however, and the USAF did the best it could with the supersonic dual role fighters in its inventory. Vietnam also saw the extensive use of USAF special operations aircraft, notably the AC-47, AC-119, and AC-130 series aircraft. These aircraft, working at night with special sensory equipment, were able to bring clearly decisive firepower to bear against the enemy in support of ground defensive positions.

Today tactical airpower, geared for mid- to high-intensity warfare, can be a responsive, powerful asset available for the ground commander in most environments. It is even iffective for the strike operations that are, oddly, part of LIC. However the US Air Force, for the most part, is not really prepared to participate in a low intensity conflict materially or doctrinally. There are numerous reasons for this lack of capability, however the overriding factor "has been the Air Force's inability to fully comprehend the threat or to develop a clear set of priorities so it can respond to the threat with confidence."[17]

To determine how best to integrate tactical airpower into the low intensity arena we will now examine three low intensity conflicts in which airpower played a key role.

Section Two

The Historical Use of Tactical Airpower In Low Intensity Conflict

The need for tactical airpower in LIC is not generally well understood. It has been pointed out that in the past airpower has not always been a decisive factor in many conflicts. A cursory examination across the range of conflicts reveals that despite having air superiority Chiang Kai-Shek lost China, the French lost Indo-China, Batista lost Cuba, Somoza lost Nicaragua, and the United States lost Vietnam. Obviously air superiority, of itself, then does not guarantee success, particularly in LIC.

Is there then a need for airpower in LIC? One author, when asked this question responded:

> ". . . the answer [can not] be taken for granted if it has not been validated historically. If, in other words, previous experience has not demonstrated that there is a role for air power in low-intensity conflict. And if that role has not been demonstrated satisfactorily, then we need to know if there are external reasons for this which can be corrected, or if the reasons are intrinsic to air power and cannot be corrected."[18]

By examining the use of airpower in the Philippines, Malaya, and Afghanistan the positive, perhaps decisive, effects of airpower will be demonstrated.

This section will focus on the use of tactical airpower in three "modern" low intensity conflicts; the Hukbalahap Insurrection, the Malayan Emergency and the invasion of Afghanistan. Although the Afghan Civil War is not truly low intensity conflict, it is included here because it was a counterinsurgency operation and a testing ground for the newest Soviet support aircraft as well as US made anti-air weaponry. The fact that (as in Vietnam) involvement of a superpower did not automatically insure success is also important. The lessons learned in Afghanistan about the utility of tactical air in the face of state-of-the-art anti-aircraft weapons will be applicable in future low intensity conflicts where high technology aircraft are used.

Philippines

From 1946 to 1955 the Philippine government was involved in an insurgency against well organized, popularly supported communist insurgents. The Hukbalahaps, or Huks, were born during WW II as the *Hukbong Bayan Laban Sa Hapon*, or the People's Anti-Japanese Army. The Japanese invasion of the Philippines provided the opportunity for a band of untrained, unorganized, communist rebels to become an effective guerilla force, once local rivalries were abandoned in order to fight a common enemy.

At war's end the Philippine people found itself possessed of a weak and ineffectual government. Post war economic reconstruction was hampered by inefficiency and overt graft. Propagandists took these weaknesses and coupled them with the problems of land-tenancy that had existed for years and by the summer of 1945, with support for the government in decline, civil unrest and lawlessness was rampant. The common man had to choose to support either the overtly corrupt government or the outlawed Huks who at least attempted to provide

control and worked to enforce order. The result was a growing support base for the communist cause, not so much for ideological reasons as for a real desire to see needed change and reform.[19]

The success of the Huks depended upon the active support of the local populace. Around the mountains and swamps of the Huk guerillas was more than 6,000 square miles of the best farm land in the Philippines, most of it owned by landlords who had fled before the Japanese invaders, leaving the tenant farmers behind. The Huks understood the desire of the people to own the land they farmed, and played well upon this sentiment.

The military branch of the Huks was well organized. Each regional command was composed of a single regiment made up of two battalions of two squadrons each. The 100 man squadron (company) was nominally composed of two platoons, each platoon of four, twelve-man squads. The organization was sound, but the guerillas suffered from two weaknesses--shortages of arms and communication.[20]

What weapons they had were stolen, captured or purchased on the black market. Ammunition supply was a constant problem. Except for small arms and the occasional light machine gun, there were no anti-air weapons. Like weapons and ammunition, the communists suffered from a lack of modern communications capabilities. Radios (and batteries and spare parts) were in extremely short supply. What radios the Huks owned were used primarily for intelligence gathering, since the government was using the same radios. The time tested courier system was the primary communications means for the guerillas.

Against the guerillas was arrayed an army of 30, 952 men of the Philippine military who suffered from poor training, communications, security and intelligence. The common soldier was poorly educated and poorly paid.[21] The

situation was indeed bleak until mid-1950 when Ramon Magsaysay was appointed Secretary of National Defense.

In the closing months of 1950, after becoming thoroughly familiar with the situation Magsaysay instituted a new, vigorous approach to the military problem of dealing with the Huks. He directed that all the armed services be involved. Up to that time it had been exclusively a land war. Air operations began immediately, and the inclusion of the Air Force would add a new dimension to the conflict.

The Philippine Air Force at that time consisted of a transport squadron of C-47s, a mixed squadron of L-5s and L-4s (light observation aircraft) and several US surplus F-51 Mustangs, and T-6s (two seat trainer converted to ground support role).

When there were no close support missions the Air Force exploited the abilities of their slow flying aircraft to conduct psychological warfare missions. Pamphlet drops and loudspeaker missions were used. As the conflict continued, these missions became increasingly effective against the communists.

Using intelligence gathered, in part, by aerial photography and pilot observation, locations of enemy troops could often be determined quite accurately. The Air Force's L-5 aircraft would then drop leaflets offering amnesty to the guerillas. In one instance, when intelligence was able to accurately determine the names of several members of a guerilla band, the aircraft circled the guerillas calling upon the members, by name, to surrender, then told them there was a government rifle company closing on their position. Before leaving the pilot made a parting remark over the loudspeaker: "Thank you very much, friend down below. By your information we have been able to contact your friends. Be very careful, I hope you have not exposed yourself unnecessarily."[22] There had been no information passed, but the seeds of doubt were sown and resulted in several executions and heightened tension in the guerilla band.

Magsaysay himself utilized air transport, in the form of an L-5 light observation aircraft, to visit as many villages and troop concentrations as possible. He would land, often unannounced, and speak to the people reassuring them of government support. This widespread visibility of the legal government at a time when it was increasingly unhealthy for guerillas to be seen in public, demonstrated to the people a caring attitude on the part of the government and loosened the grip held by the communist Huks.

The venerable L-5, hardly a tactical aircraft, was used for aerial photography, artillery observation, communications relay, forward air control, and in more than one instance aerial resupply. Although this sounds like the missions performed by today's helicopters, the fixed-wing L-5 offered one great advantage to an economically stressed nation --it was inexpensive to buy, operate, and maintain. The contributions of the L-5 were great, but it was not armed and could not engage enemy troops. For that mission fighters were needed.

During the early years of the conflict the role of the tactical fighters was overshadowed by that of the aircraft flying reconnaissance, resupply/transport, and psychological operation missions. During the latter stages, however, the tactical air forces were very busy. Psychological operations had successfully isolated the guerilla from the populace and intelligence had progressed to a point where guerilla units could be identified and located accurately. The techniques were simple. Ground units or aerial observation would locate the guerillas and, through the radios in the L-5, fighters would be scrambled to fly the bombing mission. Targets were marked either by smoke grenades dropped by the L-5 or by "talking the pilot onto the target".[23]

Types of ordnance used were limited. Because the Korean war was drawing a large portion or US supplies, the Philippine Air Force had to make do with what was available. For instance there were no target marking rockets for the

L-5s, nor was there any napalm for the fighters. Mortar rounds were modified to explode on impact and were carried by the L-5s to harass the enemy and mark targets for the fighters. The largest bomb used was a 100 pound fragmentation bomb on the F-51 fighters. Fifty caliber machine guns were also used to good effect.

What were the effects of tactical air? Because of the threat of aerial observation and attack, large bands of guerillas could no longer congregate. Large indoctrination rallies could no longer be held and the visibility of the guerilla was diminished, resulting in a lessening of the support base previously enjoyed by the guerillas. To escape the Air Force the guerilla was forced into the mountains and jungles, farther away from his source of supplies. The guerillas began to suffer logistically, while the government forces could receive aerial resupply and continue to pressure the guerillas. Eventually, the inexorable crush of combined land and air forces managed to strangle the guerilla and force his capitulation.

Malaya

The Malayan Emergency (1948-1960) has some similarities to the Hukbalahap rebellion, but the character of the conflict was much different. The insurgents were not racially Malay, but rather, for the most part, Chinese immigrants and agitators. Similarly, the government in power was not Malay, but British. Almost 6,000,000 Malayans lived in cities, towns, and villages, mostly along the west coast. Of this population half were native Malayan, one-tenth Indian, and the remainder Chinese.[24]

The geography of the area did not favor large-scale military movement. The road infrastructure, such as it was, was limited to the agricultural region along the west coast. Leaving the relatively narrow strip of low lying cultivated land, the

terrain rose rapidly into hills and mountains that were covered with a dense, double or triple canopy forest up to 200 feet tall.

The communist insurgents, like the Huks, were organized during WW II to fight the common Japanese enemy. Arms and ammunition supplied to them by the Allies were available at the beginning of the conflict. The Malaya Communist Party (MCP) was efficiently organized along doctrinal lines and the Malayan Races' Liberation Army (MRLA) was its military arm. In 1950 there were over 5,500 terrorists (guerillas) living in the jungle facing a force, at its peak, of 40,000 regulars, 24,000 police, 37,000 constables, and a Home Guard of about 250,000 men. The Home Guard was primarily a deterrent force, and the bulk of actual fighting was done by British regulars, particularly the Gurkhas. Against a government force of 300,000, the MCP and MRLA managed to fight for 12 years.[25]

Supporting the ground forces were one bomber squadron, one photo/reconnaissance squadron, one fighter squadron, and one transport squadron, a total of less than 100 aircraft. Additional squadrons, from time to time, would supplement the permanent squadrons, including several helicopter squadrons.

Like the Filippinos, the British had innovative leaders who were able to integrate civil and military actions to thwart the insurgents. Lieutenant General Sir Harold Briggs and General Sir Gerald Templar were the best of these. Under the leadership of these men the British won the support of the Malayan population and, with the institution of the "Briggs Plan", the military was integrated into a smoothly run multi-agency program. The Briggs plan called for the RAF to support the army and police force with transport, reconnaissance, and fire support.

With the notable addition of helicopters, the types of missions flown by the Royal Air Force (RAF) in support of the ground campaign were nearly identical to those of the Philippine Air Force. Aerial resupply and transport were vital

ingredients to success as was aerial surveillance and reconnaissance. What we are interested in here, however, is the use of tactical aircraft performing what the RAF termed strike missions and special missions.

The RAF began the conflict flying WW II vintage propellor driven aircraft such as the Spitfire, Tempest, and Hornet fighters and the Brigand, Lincoln, and Sunderland (flying boat) bombers. Special missions were flown with C-47 (Dakotas) and Austers (light observation). As jet aircraft were added to the RAF inventory (1953-54) they replaced the older, though still effective airframes, as part of an overall force modernization plan. Though there was some concern that increased speed and decreased loiter time would adversely affect mission performance, jet aircraft such as as the Meteor, Venom, Viper, and Canberra were all used with success.

The effectiveness of fighters for strike operations is hard to evaluate. Though flown extensively, strike missions with no ground follow-up were impossible to evaluate in terms of enemy casualties. On the other hand, integrated air-ground actions with enemy positions located adequately for the aircrews were very effective.

Target identification was, and remains to this day, the primary problem in aerial attack. The British solved some of the problems by innovative use of such devices as colored balloons tethered above small clearings in an otherwise featureless rainforest for use as a bombing reference point. The Eureka radar bombing beacon was also used with some success. The end result though, was that area bombing is, at best, only satisfactory and not generally cost effective.

A wide range of ordnance was used against the terrorists including 7.9mm machine gun, 60 pound aerial rockets, 20 pound fragmentation bombs, cluster munitions, and 500 and 1000 pound bombs. The area coverage of cluster

munitions was found to be particularly effective, while the 60 pound rocket was virtually ineffective.[26]

Special missions, as part of tactical airpower, included airborne insertion of personnel, aerial spraying of terrorist food sources, and psychological operations. The ability to insert assault forces anywhere on short notice was particularly useful.

Given the fleeting nature of intelligence in conflicts of this type, speed is of the essence. Airborne/airmobile forces were often inserted around the suspected enemy location in a cordon while fighter/bomber aircraft worked the target area itself. This method proved particularly effective.

Psychological operations were also effective. Loudspeaker missions similar to those flown against the Huks targeted the morale of the terrorists. Leaflet drops were conducted but were not so effective as the loudspeakers. The leaders of terrorist bands could outlaw the reading of pamphlets (if the terrorist was literate) but could not prevent the words from the psyop aircraft from penetrating to every member of their command.

The use of airpower during the Malay Emergency undoubtedly made a difference in the conduct of the war. The conflict took the British 12 years and 11,000 lives to resolve, but without the use of air the cost could have been much higher. As one commander of British forces during the emergency put it, "Although this was not an air war, aviation was essential to the operation in Malaya."[27]

Afghanistan

The Afghan Civil War differs from the two previous conflicts in that the side with overwhelming superiority in airpower has apparently lost. The lessons

demonstrated by this conflict will have far reaching implications for the US in any future low-intensity operation where absolute tactical surprise is not achieved.

Following the Marxist coup of 1978, the Soviet Union was given an opportunity to expand its influence to the south. When the situation with non-communist Afghan tribesmen fighting for their independence did not seem to be on the way to solution, the Soviets requested permission to help put down the insurrection. The incumbent government of Afghanistan, however, was not as tractable as desired by the Soviet Union and denied these requests. As a result, on the 24th of December 1979, the Soviets invaded and within three days installed a new, more sympathetic, president. By the 24th of December the Afghan capital was completely under Soviet control.

As Figure 3 shows, the Soviets had much the same goals in Afghanistan as did the US in Vietnam. As a result of the need to cover large expanses of terrain, airpower was indispensable. The classic missions of theater resupply/transportation and reconnaissance were, of course of primary importance as in the two previous examples of LIC. There remained, however, one difference. Whereas in the Huk and Malay conflicts the role of tactical airpower was more or less an adjunct to the operation, in Afghanistan it was of much greater importance, called by some sources the "center of gravity" of the Soviet forces in Afghanistan.[28] Because of the nature of the terrain a quick reacting, mobile, hardhitting source of firepower was needed and tactical aviation (along with tactical helicopters) was the answer.

Soviet Operations

Strategy	Operational Aim	Applied Doctrine	Tactics
Stabilize Republic of Afghanistan Government, Pass Fight To RA Forces When Able To Win	Control Through Occupation	Defensive	• Prevent Mujahadin Massing • • Interdiction • •Limited Offensive Ops With RA Forces • Fight From Garrisons And Outposts • Control LOCs

Figure 3 [29]

The Soviets deployed several squadrons of fighters to Afghanistan over the course of their involvement including Mig-21s, Mig-27s, Su-17s, and for the first time ever, their Su-25 (Frogfoot). The Su-25 is similar in function to the USAF's A-10 close air support (CAS) aircraft. In addition to the fighters stationed in-country, sorties against enemy positions were flown by SU-24 fighter/bombers and Tu-16 bombers from inside the Soviet Union.[30]

In addition to traditional CAS, the Soviets utilized their tactical aircraft for two missions: to interdict the flow of supplies along the limited LOC network in Afghanistan and to act as long range fires in addition to their artillery to suppress and/or destroy rebels either singly or as massed targets. The tactical air forces were also given the mission to independently target resistance bases and positions, and destroy the support infrastructure of the resistance forces (destruction of local economy, irrigation systems, crops and cattle).[31]

The Soviets enjoyed reasonable success with the use of their tactical airpower during the first portion of their occupation. The limited anti-aircraft weapons available to the rebel Mujahidin were not a serious threat either to high

performance tactical aircraft or to the tactical helicopters used in support of ground operations. After an initial learning period, the mission success of the Soviet pilots rose significantly.

Weapons used by tactical aircraft ran the entire gamut of air deliverable ordnance. General purpose bombs of various sizes, cluster munitions, air scatterable mines, rockets, guns and chemical weapons were all seen in Afghanistan. The Soviets, in fact, took advantage of this conflict as a testing ground for new weapons, equipment, and aircraft such as the Frogfoot close support aircraft.

Interdiction of small non-mechanized supply columns has always been a difficult operation and success or failure depend on up-to-the-minute intelligence. Despite the challenges of target acquisition the Soviets were managing to slow the arrival of much needed supplies for the rebels. Soviet pilots were able to fly low-threat tactics and use "free hunt" techniques (armed reconnaissance) throughout the depth of the rebel-held terrain. Unprotected convoys of trucks or pack animals, once found, were easy targets for aerial attack. The tactical situation changed with the arrival of US made Stinger missiles in 1986.

The arrival in theater of Stinger missiles changed the nature of Soviet air operations radically. Previously successful tactics were now causing unacceptable losses of aircraft of all sorts. Resupply aircraft suffered as did the tactical aircraft. The war of attrition desired earlier by the Soviets was now turned against them. No longer was it "cost effective" to send expensive fighter jets against relatively small, low-payoff targets. The Mujahidin were now able to assume the offensive against Soviet tactical air by setting "traps" with the aid of Stingers. For instance, the rebels would stage an attack against Soviet forces knowing full well an air response would be dispatched to help the beleaguered ground forces. Upon arrival, the aircraft would be met with Stinger missiles which would either drive them up to

altitudes that made ordnance delivery relatively ineffective or, in the case of helicopters, drive them so low that AAA, small arms, and RPG fire was murderous.[32] Even with the increased use of self-defense flares the Stinger was still a formidable weapon. What has been described as the Soviet "center of gravity" was neutralized.[33]

With the loss of freedom of the skies, support of ground operations began to suffer. In just three years after the arrival of Stinger the Mujahidin had forced the mighty Soviet war machine to withdraw from Afghanistan, leaving behind only the native Afghan army to continue the war.

Summary

Airpower played a role in each of the three cases just examined. What is the common thread running through these three different conflicts--causes, participants, technology, counter technology?

In the Philippines the conflict was not based so much on ideological grounds as it was on a real desire to see needed change and reform within the existing government. In Malaya the fight was ideological, but racial and ethnic differences helped to separate the terrorist from the populace, restricting support for the terrorist. In Afghanistan the conflict was a civil war for ideological purposes, but this time with the added ingredients of religious fervor and cultural resistance to centralized governmental control.

In the Huk Insurrection the conflict was fought solely by internal forces. The US assisted the Philippine government only with limited material support, with modern equipment being diverted to Korea. In Malaya the conflict was conducted both by indigenous forces and a foreign colonial force who did most of the actual fighting. The local populace did not rise up against the colonial government in a war

of liberation because they had already been promised their independence and the colonial representatives continued to act in good faith. In Afghanistan the rebels were fighting a foreign invader and its puppet government. In addition, the Mujahidin were fighting a Jihad, or holy war to preserve their religion and culture.

The Huk rebellion was fought by WW II surplus aircraft, deemed unsuitable for service in Korea as more modern weaponry became available. The Philippine government's front-line figher was the F-51 Mustang, an aircraft made famous in the air war above Germany. Ordnance was limited to small (again surplus) bombs, machine guns and homemade marking devices. Aircraft were restricted to visual deliveries and good weather. In Malaya the British began with older, proven tactical aircraft, but did not hesitate to upgrade to jet powered fighters when they became available. A variety of ordnance was used, some to better effect than others, and there was no shortage of ordnance. The British used innovative techniques to locate targets beneath the thick rainforest for the fighters, and with the advent of improved radar beacons, developed a true all-weather bombing capability.

In the Philippines the rebels had only small arms for use against aerial targets. As a result, the Philippine Air Force flew when and where it wanted with near total impunity. Similar conditions existed in Malaya. The British suffered few losses to enemy anti-aircraft fire. In Afghanistan the Soviets learned the hard way the effects of portable anti-aircraft weapons. The Mujahidin had only limited numbers of conventional anti-aircraft weapons, but with the arrival of Stinger, were able to create "traps" that maximized the effects of their available weapons.

In the special operations environment tactical air has proven its worth. Psychological operations conducted with unarmed, light tactical aircraft was utilized to good effect in both the Huk Rebellion and the Malay Emergency. The ability to insert, resupply, and support ground forces by tactical aircraft increases the

flexiblity of the ground force commander. In Afghanistan, where tactical airpower was used to destroy the local infrastructure and harass guerilla bands as well as to constrict the sources of supply, the psychological impact on the rebel was great.

What lessons do we learn from these three examples? The primary lesson is that airpower has a place in LIC, particularly in the insurgency/counterinsurgency and strike arenas. In two instances where control of the air was uncontested, the side with air power were victorious. Control of the air did not guarantee success, but without a doubt having unrestricted use of tactical airpower played an important role in the conflict. When Stinger denied freedom of the air to the Soviets a decisive element of Soviet power was eliminated. Was airpower the center of gravity for Soviets? Probably not, in the Clausewitzian sense, where center of gravity is defined as the source of all power. But undoubtedly it was vital, and under the circumstances, an irreplaceable source of fire support. Loss of tactical airpower did not have to mean the loss of the war, but its absence forced the cost of victory, in terms of lives and equipment lost, to escalate to unacceptable levels. Given the similarities and differences of these three low-intensity conflicts, I propose that tactical airpower does have utility in LIC.

Section Three

Tactical Airpower And LIC Today

Where do we stand today with regards to the integration of tactical airpower with Low Intensity Conflict? The military has a new and seemingly serious interest in LIC. Doctrinally, the US ground forces are, however, only beginning to understand the requirements of LIC. According to one author,

> "[LIC] was adopted largely to deal with US military involvements in situations which, for the United States at any rate, were not war. Whereas FM 100-5 has achieved a logical consistency by dealing with a single activity, essentially warfighting at theater level, FM 100-20 wraps a set of fundamentally dissimilar activities under a single title and definition. The result is a predictable confusion."[34]

The US military is uneasy with LIC. For years the focus has been on a clash of military forces in Central Europe. It is comforting, in a way, to be able to fight a war with regards only to the military situation between your forces and that of your enemy. The emphasis in LIC, however, is on the political orientation. In LIC there are too many restraints and constraints that bind the actions of maneuver commanders.

The pace of LIC is different also. We like the idea of short, decisive wars. The US was involved in WW II only a few years, and even less time in Korea--the last of the US's wars of maneuver. We see at the National Training Center battles fought with the lightning speed and violence that only a heavy mechanized force can achieve. Decisions are reached in hours, and deployments are over in a matter of

days. Even the most cursory study of LIC, however, will show that conflicts lasting less than 10 years are a rarity. Involvement in a low-intensity conflict is a commitment to spend one or two decades fighting a war for limited aims, where every decision is weighed against political ramifications, and public support, for the long run, is very much in doubt. It is little wonder the military prefers to plan for a NATO situation.

Pragmatically, the military must prepare for the worst case, and, individually, we prefer to prepare for the unambiguous situation of mid- to high-intensity war. The results, of course, are easy to predict. According to one author:

> "US defense capability is analogous to a medical capability to treat only serious diseases, with no preventive medical program. Because of a lack of LIC capability, the United States must wait for LIC to escalate to conventional conflict before it can effectively intervene to protect its interests."[35]

The US Air Force shares the same conditions with their counterparts on the ground. Emphasis is placed on jet fighters that will engage in high-tech, high-speed, violent engagements against similarly prepared forces. Little emphasis is placed upon subtlety. RED FLAG, the primary USAF training facility at Nellis AFB, Nevada, simulates the high threat scenario expected to be found in the Central European theater. Like the US ground forces, the Air Force must prepare for the most dangerous threat, even though it may not be the most probable threat. Despite the high probability of LIC..."the US Air Force remains poorly postured institutionally, materially, and psychologically to effectively operate in low-intensity conflict."[36]

Let us now examine the ability of the US Air Force to integrate its forces into a low-intensity conflict by looking at how they are organized, trained, and equipped to perform in LIC.

According to the most recent TACM 2-1, a document that has stood without major revision since 1978:

> "The Air Force Special Operations Force provides the tactical Air Force Commander with a basic organizational structure that he can adjust to fulfill national requirements for air power in the combat roles of Unconventional Warfare, Foreign Internal Defense and Psychological Operations. These missions vary with national policy, which in turn affects assignment of weapon systems, tactics and specific mission tasking. ....The nature of these operations demands that these forces be responsive and flexible...."[37]

Organizationally, the only USAF asset devoted full time to LIC is the 1st Special Operations Wing (SOW) located at Hurlburt Field, Florida. The SOW is a dedicated asset of USSOCOM and has the responsibility to carry the unconventional warfare load for the entire Air Force. The SOW must be prepared to support any CINC by direct action in any theater of operations under almost any conditions, in mid- to high intensity as well as LIC situations. In contingencies where tactical assets are added to a SOF package, the SOW will form the nucleus organization. The SOW must perform their missions with assets insufficient to support even one CINC's requirements.[38]

The SOW's assets to conduct LIC include one squadron of aging Specter gunships, a small number of MC-130 Combat Talons, and a mix of HH-53 Pave

Low and UH-1N helicopters. Additionally there are a limited number of SOF assets in the National Guard, such as the EC-130E Volant Solo in the Pennsylvania Air Guard.[39] Clearly, there is a shortage of SOF dedicated aircraft in today's Air Force.

Depending on the situation, nearly any aircraft could be called upon to participate in a LIC mission. There is a danger in this, however. The deployment of conventional forces into an unconventional environment can lead to expenditures of men and resources in a conflict environment for which the military is unprepared (or mostly irrelevant). This can lead to inconclusive results with negative impact on the American people and the indigenous area.[40]

What are the tactical aircraft that exist in today's Air Force that could be called upon to participate in LIC, in one form or another? Everyone is familiar with the F-111 and its role in Operation Eldorado Canyon, the strike against Libya--a peacetime contingency operation. The F-111 is an excellent platform for this type of mission. It can fly long distances and penetrate enemy defences by means of both electronic countermeasures and low level supersonic flight. Once over the target it can drop precision guided ordnance with state of the art accuracy. For a strike mission with such restraints and constraints as the Libyan raid, it does very well. What it does not do well is defend itself (or others) against attacks from other fighters--its only defense is a combination of speed and low altitude.

The remainder of the tactical forces include F-16s and F-4s, both supersonic multi-role fighters and the A-10, a subsonic dedicated CAS aircraft. The single seat F-16 is capable of precision delivery of nearly any ordnance, and extended range with aerial refueling. The F-16 is very capable of defending itself against attack from other aircraft in day, clear air mass situations. The two seat F-4, a Vietnam era fighter, with the ARN-101 navigation/weapons delivery modification has virtually the same capabilities as the F-16 with the added advantage of true all-

weather air-to-air capability. The A-10, of course, is known as the Air Force's flying tank killer. It is capable of flying close support missions better than any other aircraft in the current inventory. It can carry virtually any ordnance and, with its 30mm cannon, can kill any vehicle it can see. Its limitations are low speed and no defense capability against fighter aircraft.

The tactical air forces also include a smattering of armed observation planes suitable for LIC operations. While the OV-10 Bronco performed well in the skies over Vietnam, the OA-37 Dragonfly has become the US's latest Foreign Internal Defense (FID) airframe.

Waiting in the wings, currently a victim of reduced military budgets, is perhaps the most capable high-speed aircraft for performing LIC. The dual seat F-15E, known colloquially as the Strike Eagle, will add a new dimension to the US's SOF/LIC capability. The F-15E with its conformal fuel tanks will have the longest "legs" of any US fighter, allowing it to deploy with no or reduced refueling requirements. It has a low level ingress/egress capability similar to that of the F-111, and can carry and deliver any ordnance in the US inventory. Its weapons delivery accuracy in any weather or visibility condition is unrivaled. The F-15E will be equipped with ring laser gyros for the most accurate navigation system in the world. Finally it is a true day/night all-weather fighter, able to defend itself and others from aerial attack.

Although the dedicated LIC aircraft are few in number and the supplemental tactical aircraft were designed for use in mid- to high-intensity wars, the USAF can provide airframes to support ground forces in LIC. Whether they can provide the aircrews to perform the mission is another question.

Aside from the dedicated SOW, there is no LIC training for USAF aircrews. There are those who would argue that special training for aircrews is not necessary, saying that weapons delivery is a technical skill and independent of the

theater of operations. However the ambiguous and highly political nature of LIC argues for more than mere technicians. As Sarkesian says:

> ...two characteristics of unconventional conflicts emerge and are essential in the search for concepts. First and foremost, unconventional conflicts are, as the name states, unconventional. . . Second, the center of gravity of the conflict (in Clausewitzian terms) is rarely in the armed forces of the antagonists, but in the political-social milieu of the indigenous system."[41] [emphasis added]

Training of aircrews for special operations should focus on developing habit patterns upon which the crews can fall back when faced with a high-stress situation. Because of the potentially sensitive nature of the operations, discipline must be stressed. Training must emphasize developing proper skills in the proper environment, e.g., finding and accurately striking targets during night low-level flight. Aircrews should be concerned with attacking people, not just hardened targets or vehicles. It is best for forces who go to war together to have trained together. This argues for a dedicated unit who, on a regular basis, work with dedicated special operations forces on the ground. This is especially true for joint and combined operations.[42]

The ground forces of the Army are very much concerned with the need to emphasize LIC training for their soldiers. The newly formed Light Divisions are envisioned as having a primary LIC responsibility, capable of responding nearly anywhere in the world with the required firepower. The Air Force can do no less than to dedicate resources to support these ground forces in LIC.

What would it take to give the Air Force a creditable LIC capability? First and foremost is the commitment of senior Air Force leaders to equip and train for

LIC. It is important for these leaders to recognize the unique environment of the LIC situation and dedicate to it sufficient assets.

It would not be necessary for the Air Force to dedicate entire squadrons to "special operations". Perhaps having one of the four Flights in a squadron designated as "special ops qualified" would be sufficient. These aircrews would maintain proficiency in the primary mission of the squadron (DOC) but would also participate, on a regular basis with ground forces dedicated to the LIC mission. A habitual relationship between the supported and the supporting would go a long way to creating the type SOF/LIC force integration needed today.

As mentioned earlier, the USAF has the ability to project power in support of limited duration peacetime contingency operations, peacekeeping operations and counterterrorist operations where the requirements are for long range, long loiter time, and hard hitting firepower. The Air Force needs a dedicated LIC tactical fighter for insurgency/ counterinsurgency operations.

The US aircraft industry has failed to provide an inexpensive, easy to maintain, easy to fly aircraft designed for combat. The revered A-1E Skyraider would be an excellent point of departure. An A-1E with state-of-the-art avionics could perform the LIC role, needing only primitive (by multi-role jet standards) facilities and maintenance facilities. Foreign aircraft designers have not been so short sighted and there are several airframes on the foreign market that would be suitable.

Foreign internal defense (FID) is the very essence of LIC. Military Assistance Programs (MAP) designed to furnish military hardware to fight an insurgency do not have a suitable aircraft to offer most buyers. The OA-37, the latest entry in the US MAP program is too expensive to operate and maintain (the replacement cost of a single engine is $150,000)[43] and is modified from an

airframe being retired by the Air Force because it has lived out its useful life as a trainer.

US FID planners need to realize that most third world nations will not be capable of adopting our AirLand battle doctrine, and should identify the need for a fixed wing combat aircraft whose purchase will not bankrupt an emerging economy. Helicopters, while offering flexibility and unique performance characteristics, are too expensive to buy and operate in large numbers. A noted guerilla fighter in the Malaya campaign said it best:

> "Don't get me wrong. The chopper is essential and in certain types of operations cannot be replaced. But when we think of the total number of insurgency-threatened countries, and we multiply the bill, in men and materials, in trying to teach indigenous people who are not technically minded to maintain and operated these vehicles, we go right back to a simple airplane."[44]

Providing a suitable aircraft is only half the solution, however. A comprehensive training program for host-nation aircrews is a must. The program must stress the cooperative nature of fighting an insurgency, not merely the technical aspects of aircraft handling and weapons delivery. The training program for the maintainers must be rigorous within the context of host nation educational levels. The trainers must be sensitive to the needs of the nation and the cultural mores of its society. An air force forged in the image of the USAF is not necessarily the answer to FID training.

SUMMARY

This section has pointed out that currently the Air Force has two separate forces capable of carrying out LIC operations. The SOW whose full time mission revolves around LIC, and the remainder of the tactical air forces, who can be used in specific situations, but who are not trained specifically for the LIC mission.

The SOW is currently stretched to its limit supporting SOF training in support of USSOCOM. It needs rapid infusion of new airframes in sufficient quantities to fulfill its worldwide commitments.

The tactical air forces are adequately trained to fly from point A to point B and deliver ordnance. These forces are not, however, designed, nor are they trained for the subtle approach often required by the political ambiguities found in LIC. The airframes available are adequate for short duration operations where air refueling or advanced staging bases are available. The arrival of the F-15E with its incredible capabilities will signal a vast improvement in support of long range LIC operations.

There is currently no US made aircraft suitable for counterinsurgency that meets the requirement for FID.

The solution to these problems, and others as they appear, lies in a genuine commitment on behalf of senior Air Force leaders to fully support the LIC requirements.

CONCLUSION

This paper has attempted to impart to the reader several impressions. First is the sense of ambiguity that exists in the LIC environment.

Peacekeeping, peacetime contingency operations, anti-terrorist operations, and insurgency/counterinsurgency must all be considered when talking about low-intensity conflict. The environments will differ greatly between operational categories, and the requirements for aircraft will differ likewise. The history of tactical air has not prepared the modern US Air Force to fight wars below mid-intensity. Our focus on the European battlefield, while understandable, is not necessarily correct.

History shows us that tactical airpower has utility in the LIC environment. When freedom of the skies is assured, tactical air becomes a flexible, extremely powerful weapon for the ground commander to exploit. The use of tactical airpower in LIC extends beyond merely dropping bombs, however. Aerial reconnaissance, limited resupply (there are supply canisters capable of being dropped from high performance aircrafts that would be invaluable to a needed LRSU deep in enemy territory), and psychological operations are all capable of being conducted by tactical aircraft. When the high-speed tactical forces are not appropriate, the special operations assets of the Air Force may be used.

The Air Force is, at this time, not fully prepared to support the Army in LIC to the full extent it is capable. Psychologically the tactical air forces will need to undergo some adjustment. Sortie count, hours flown, and tons of bombs delivered will not be the measure of success in LIC. Tactical airpower may not be an every day occurrence, but when it is needed response time must be short and deliveries precise.

Airframes for foreign internal defense must be produced if the Air Force counterinsurgency is to play a cost effective role. The A-10, while meeting the requirements for performance as a LIC aircraft, is too expensive for most third world countries to purchase and maintain. The burden of combat should fall upon the shoulders of the host nation when possible. An inexpensive, reliable, fixed-wing, tactical aircraft is one answer.

Current inventories of SOF specific are insufficient to support the world wide commitments levied against these assets. Acquisition of follow-on airframes in sufficient numbers should be a priority.

One final issue, even more expansive than tactical air force support to LIC, deserves treatment here. There is a feeling at certain levels of the US Army that the Air Force is not fully committed to supporting the Army ground forces with tactical airpower. Paucity of close air support aircraft missions (visibility of the Air Force on a day to day basis), the observed rank structure and experience level of FAC/ALOs in the field (an impression of too many lieutenants, with too little experience, and seldom a second tour for any FAC/ALO), and lack of clear, unequivocable, up-to-date doctrine (TACM 2-1 is over 10 years old without a major revision) is the basis for the feeling of neglect. Granted, misperceptions exist on both sides of the fence, and an unlimited budget would go a long way towards rectifying the situation, but there is yet another solution to the problem.

The answer lies with Air Force senior level leadership. At a minimum the following steps should be taken:

• A commitment must be made to supporting the Army in every arena. This means dedicating assets to SOF/LIC training as well as training for the Central European, or Korean scenarios.

• Training must extend beyond ordnance delivery and threat recognition. A dedicated program of education for all Air Force officers is a must. The mission of

the tactical air force, despite all the rhetoric about deterrence, is to support the Army in the field and defeat the enemies of the United States. To paraphrase a noted aviator from the past, "... anything else is rubbish!"

The average crewmember in the tactical air force has become a technician. The immense amount of knowledge necessary to survive in a fighter squadron today is far and away more than that needed only 20 years ago. Operators manuals have become thicker, tactics and techniques more elaborate (by virtue of the information available from modern avionics), and the threat much more formidable. Somewhere in the busy career of the fighter pilot he must be educated in the basics of ground warfare. How can you adequately support what you do not understand?

Joint education is good, but it occurs for only a few field grade officers. The process must be started at the lieutenant level and be continued throughout the career. Detractors would argue that the flyer must learn first and foremost the art of flying, and education in ground warfare would take away from the time necessary to become the best at his chosen profession. The primary focus of the tactical air forces is warfighting, and the study of war extends beyond the fragmentation radius of the Mk-82 GP bomb, or the lock-on limits of the AIM-9M. The Air Force crewmember must be a professional at his chosen field--war--not merely a technician delivering bombs like UPS delivers packages. War is an art, not a skill.

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